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EXAMINER

JOSEPH, THOMAS J

ART UNIT PAPER NUMBER

2174

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/643,507

Applicant(s)

CARLIN ET AL.

Examiner

Thomas J Joseph

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 5, 7, 13 – 17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 6,331,858) and Schein (US 6,323,911).

Claim 1:

Fisher teaches a computerized method for generating and rendering over a digital communications network a perspective view of a three dimensional (3D) object that can exist in the real world located within, surrounding, or in front of, a 3D scene that can also exist in the real world, the method of presenting a perspective image of a 3D object in a 3D scene (fig. 3). Fisher teaches producing the 3D scene at a first computer using a digital communications network (fig. 1). Fisher teaches a 3D model of the background, or, equivalently, precursor of the 3D background model, or, equivalently, one or more related 2D views of the background scene suitable to serve as precursors of the 3D background model (fig. 5). Fisher teaches using associated dimensional information of the particular 3D scene (fig. 3). Fisher teaches a selected suitably real world object (col. 5, lines 42 – 52). Fisher teaches transmitting from the first computer upon the digital communications network the information (col. 5, lines 42 – 52). Any input involving selection or purchase requires transmitting from a first computer. Fisher

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teaches receiving at another, or second computer, using the digital communications network, the information (col. 1, lines 50 – 55). Fisher teaches deriving on the second computer a 3D background model of the represented and selected 3D background scene (col. 5, lines 15 – 25). Fisher teaches combining, using the second computer, information that derive the 3D background scene model to assemble the data in consideration (col. 5, lines 15 – 25). Internet accesses require a second computer. Fisher teaches object-based rules as to how the selected 3D object exists within the 3D scene for producing a 3D perspective view of the properly scaled and selected object (col. 5, lines 15 – 25). These objects are located and oriented relative to the 3D scene (col. 5, lines 15 – 25). Fisher teaches displaying at the first computer (fig. 3; col. 5, lines 14 – 25). Fisher teaches a perspective view of a 3D mode, and a selected object with which is associated a scene, permits generation of a 3D perspective view of the selected suitably real world 3D scene (fig. 3; col. 5, lines 14 – 25). Fisher teaches image selection made interactively over a digital network transpiring entirely in 2D supports the generation of a 3D perspective view showing a 3D object located and oriented within a 3D scene (fig. 3; col. 5, lines 14 – 25).

While Fisher does teach display of 3D information on network linked computers, Fisher fails to teach transmitting from the second computer, using the digital communications network, the perspective view. Schein teaches transmitting from the second computer, using the digital communications network, the perspective view (fig. 6a, #126). Schein teaches receiving at the first computer, using the digital communication network, this perspective view (fig. 6a, #126). It would have been

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obvious to one with ordinary skill in the art at the time of the invention to combine transmitting from the second computer, using the digital communications network, the perspective view as taught by Schein with the digital communication network disclosed by Fisher. Doing so enables the user to access various types of graphics and other complex digital information using a terminal having limited memory.

Claim 2:

Fisher teaches exercising to the purpose that a prospective purchaser of the suitably-real-world 3D object may be rendered using a 3D perspective view of a 3D object that is virtual within the suitably-real-world 3D scene (fig. 3; col. 5, lines 14 – 25) wherein the object and/or the scene shown in the perspective view do not actually exist, either or both object scene could exist (col. 1, lines 50 – 55).

Claim 3:

Fisher teaches the suitably real world 3D object being selected in the form of a 2D iconic image, the 2D iconic image representing an associated object that is the selected suitably-real-world 3D object (fig. 3; col. 5, lines 14 – 25). Since all images are displayed on a 2D output device, any 3D object is also a 2D object.

Claim 4:

Fisher teaches the icon or graphical image being selectively placed and rotated at the first computer to produce placement and rotational information regarding where and at what positional attitude the selected object is placed within the selected 3D scene (fig. 5; col. 5, lines 40 – 50). Fisher teaches selecting object being placed within the selected 3D scene (fig. 5; col. 5, lines 40 – 50). Fisher teaches a second computer

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of information and the derived 3D background scene model to assemble in consideration of object-based rules as to how the selected 3D object exists the 3D scene being further in consideration of the placement and rotational information (fig. 5; col. 5, lines 40 – 50). This produces a 3D perspective view of the selected object that is properly scaled, located and oriented relative to the 3D scene (fig. 5; col. 5, lines 40 – 50).

Claim 5:

Fisher teaches producing on the first computer a 3D model of the selected suitably-real-world-object (fig. 5; col. 5, lines 52 – 62). Fisher teaches the second computer containing a 3D model of the selected suitably real-world object for producing the 3D perspective view (fig. 5; col. 5, lines 52 – 62). Fisher teaches a model of the selected suitably real world object originating at the first computer (fig. 5; col. 5, lines 40 – 50).

Claim 7:

Fisher teaches combining in the second computer being further of a 3D model of the selected suitably real-world object that is produced from the 3D perspective view (col. 5, lines 42 – 52). Fisher teaches the model of the selected suitably real world object originating at the second computer (col. 5, lines 42 – 52). The connecting of the computer system to a network teaches the selecting of a suitably real world object originating from the second computer.

Claim 13:

Fisher teaches generating and rendering over a digital communications network a perspective view of a 3D object that exists in the real world located within a 3D space that also exists in the real world (fig. 5; col. 5, lines 50 – 62). This is a method for presenting a perspective image of a 3D object in a 3D space (fig. 5; col. 5, lines 50 – 62). Fisher teaches generating at a client computer a digital communications network containing one or more 2D images representing an associated particular suitably real world 3D scene in which a 3D scene is a place where a suitably real world 3D object can exist (fig. 5; col. 5, lines 50 – 62). Fisher teaches associating dimensional information of the particular 3D scene as it appears within a particular 2D image (fig. 5, col. 5, lines 62 - 67). Fisher teaches providing a selected 2D iconic image representing an associated selected suitably real world 3D object (fig. 5, col. 5, lines 62 - 67). Fisher teaches placement and rotational information regarding where and at what positional attitude the selected 3D object represented by the selected iconic image is to be placed within the selected 3D scene (fig. 3; col. 15 – 23). Fisher teaches transmitting from the first computer, using the digital communications network, information for the previous steps (col. 5, lines 40 – 62). Fisher teaches receiving at another or second computer information data from the previous steps with a photographically or virtually derived 3D model corresponding to the represented and selected 3D scene (col. 5, lines 26 – 32). Fisher teaches a 3D model of the selected 3D object represented by the selected 2D iconic image (fig. 5, "F1"; col. 5, lines 40 – 52). Fisher teaches object-based rules telling how the 3D object exists within the 3D scene are generated in this second computer (col. 5, lines 40 - 52). Fisher teaches a 3D perspective view of the 3D object properly

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scaled, located and oriented within the 3D scene (fig. 3; col. 5, lines 15 – 24). Fisher teaches transmitting from the second computer upon the digital communications network the perspective view (fig. 3; col. 5, lines 15 – 24; lines 45 - 48). Fisher teaches receiving at the first computer, using the digital communications network, this perspective view (fig. 3; col. 5, lines 15 – 24). Fisher teaches a given 3D scene, a selection of an iconic image that is associated with a selected 3D model (col. 5, lines 63 – 67). Further, the location of the 3D object is within the 3D scene permitting generation of a 3D perspective view of the selected suitably-real-world 3D object, properly scaled, and within the selected suitably-real-world 3D scene (col. 5, lines 63 – 67). Fisher teaches interactive image selection over a digital network transpiring entirely using 2D supports that generate a 3D perspective view wherein the 3D object is shown, located, and oriented within a 3D scene (fig. 3; col. 5, lines 14 – 25).

While Fisher does teach display of 3D information on network linked computers, Fisher fails to teach transmitting from the second computer, using the digital communications network, the perspective view. Schein teaches transmitting from the second computer, using the digital communications network, the perspective view (fig. 6a, #126). Schein teaches receiving at the first computer, using the digital communication network, this perspective view (fig. 6a, #126). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine transmitting from the second computer, using the digital communications network, the perspective view as taught by Schein with the digital communication network disclosed

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by Fisher. Doing so enables the user to access various types of graphics and other complex digital information using a terminal having limited memory.

Claim 14:

Fisher teaches exercising to the purpose that a prospective purchaser of the suitably-real-world 3D object may be rendered in a 3D perspective view of a 3D object that is virtually within the suitably-real-world 3D scene (col. 5, lines 52 – 62). Fisher teaches an object and/or the scene shown in the perspective view does not actually exist; either or both object scenes can still exist (col. 5, lines 52 – 62).

Claim 15:

Fisher teaches the combining a particular 2D image representing a room, and a selected 2D icon representing the room's furnishing with a 3D model of the room, a 3D model of the furnishing, and object-based rules to the effect that the said furnishing is upon a floor, a wall, or a ceiling of the room, in order to generate a 3D perspective view of the room's furnishing properly located and oriented within the room (fig. 5). Fisher teaches a prospective purchaser of the real world room furnishing who is properly located and oriented within a real world room (col. 5, lines 40 – 62).

Claim 16:

Fisher teaches the suitably real world room furnishing rendered in a 3D perspective view, which already exists in the world (col. 5, lines 50 – 57). Further, the prospective purchaser selects or purchases room furnishings by making selections (col. 5, lines 50 – 57).

Claim 17:

Fisher teaches a suitably real world room furnishings rendered in a 3D perspective view that does not yet exist in the world (fig. 5; col. 5, lines 50 – 57). Further, building the said perspective when the prospective purchaser places the order (fig. 5; col. 5, lines 50 – 57).

Claim 21:

Fisher teaches performing interactively between a server computer and a client computer using a digital communications network (fig. 5; col. 5, lines 42 – 52).

Fisher teaches communicating from the server computer, using a digital communications network, to a client a plurality of iconic images of suitably real world objects (fig. 5; col. 5, lines 42 – 52).

Fisher teaches sizing and placing at the client computer the selected icon within the selected real-world 2D scene image (fig. 5; col. 5, lines 42 – 67).

Fisher teaches communicating from a client computer to the server computer, using a digital communications network, a 2D image of a suitably real world space (fig. 5; col. 5, lines 42 – 52). Further, positioning the sized and placed selected iconic image within the suitably real world 2D scene image (fig. 5; col. 5, lines 42 – 52).

Fisher teaches generating, at the server computer the 3D model of the suitably-real-world space, the 3D model of the suitably-real-world space, the 3D model of the suitably-real-world object and the object-based rules, and a 3D perspective view of the suitably-real-world object properly located and oriented within the suitably-real-world object space (fig. 3; col. 5, lines 13 – 24).

Fisher teaches communication from the server computer, using the digital communications network, the generated 3D perspective view to the client computer (fig. 5; col. 5, lines 42 – 52).

Fisher teaches displaying at the client computer the generated 3D perspective view (fig. 5; col. 5, lines 42 – 52).

Fisher teaches the 3D perspective view containing the suitably real world object being properly located and oriented within the suitably real world space (fig. 5; col. 5, lines 42 – 52).

3. Claims 6 and 8 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher and Schein (US 6,323,911) as applied to claim 1 above, and further in view of Gever et al (US 6,329,994).

Claim 6:

Fisher and Schein fail to teach a model originated at the first computer that is an object not for sale. Gever teaches a model originated at the first computer that is an object not for sale (col. 19, lines 4 – 20). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the model originated at the first computer that is an object not for sale taught by Gever with the other models disclosed by Fisher and Schein. Doing so provides additional objects that are not necessarily considered items for sale that users can utilize when making decisions regarding selecting purchasable items.

Claim 8:

Fisher teaches a model originating at the second computer that is of an object for sale (col. 5, lines 40 – 61).

Claim 9:

Fisher teaches placement and rotation information originating at the first computer (col. 9, lines 20 – 30). The user enters data for manipulating the avatar from the first computer. The data includes placement and rotational information originating from the first computer.

Fisher and Schein fail to teach producing at the first computer placement and rotational information regarding where and at what positional attitude the selected object that is to be placed within the selected 3D scene. Gever teaches producing at the first computer placement and rotational information regarding where and at what positional attitude the selected object that is to be placed within the selected 3D scene (col. 9, lines 20 – 30). The avatar taught by Gever requires rotational and positional information for the user to operate the said avatar. Gever teaches combining in the second computer of the information and the derived 3D background scene model to assemble in consideration of object-based rules as to how the selected 3D object exists within the 3D scene being further in consideration of the placement and rotational information to produce the 3D perspective view of the selected object properly scaled, located and oriented relative to the 3D scene (col. 9, lines 20 – 30). The user accesses a second computer when operating the said avatar.

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the placement and rotational information regarding the position

attitude of the selected object placed within the selected 3D scene taught by Gever with the 3D scene disclosed by Fisher and Schein. Doing so allows the user to rotate various objects when viewing scenes before making selections.

Claim 10:

Fisher teaches placement and rotation information originating at the first computer concerning location and attitude of the furnishing within a room (fig. 5).

Claim 11:

Fisher teaches combining using the second computer information with the derived 3D background scene model (fig. 5). This information being further placed and rotated in order to assemble object-based rules as to how the selected 3D object exists within the 3D scene (fig. 5). This is done to produce the 3D perspective view of the selected object properly scaled, located and oriented relative to the 3D scene (fig. 5).

Fisher and Schein fail to teach placement and rotation information originating at the second computer. Gever teaches placement and rotation information originating at the second computer (col. 9, lines 20 – 30). Rotational information corresponding with avatars comes from both the first and second computer dependent upon the user with whom the avatar is associated. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the placement and rotation information originating at the second computer taught by Gever with the 3D scene disclosed by Fisher and Schein. Doing so allows the user to access libraries containing various objects then rotate the said various objects when viewing before making selections.

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4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher, Schein, and Gever as applied to claim 10 above, and further in view of Izumitani (US 6,533,418).

Claim 12:

Fisher, Schein and Gever fail to teach placement and rotation information originating at the second computer concerning location and attitude of eyeglasses upon a head. Izumitani teaches placement and rotation information originating at the second computer concerning location and attitude of eyeglasses upon a head (fig. 6). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the placement and rotation information originating at the second computer concerning location and attitude of eyeglasses upon a head taught by Izumitani with the 3D scene disclosed by Fisher, Schein, and Gever. Doing so allows the user to determine fit and look of the selected item before selection or purchase.

5. Claims 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher and Schein as applied to claim 1 above, and further in view of Izumitani (US 6,533,418).

Claim 18:

Fisher and Schein fail to teach a particular 2D image representing a human head, a selected 2D icon representing eyeglasses with a 3D model of the human head a 3D model of the eyeglasses, and object based rules to the effect that temple pieces of the eyeglasses slip over the ears of the human head that is the subject of the 3D model while each lens of the eyeglasses is centered in front of an eye of the human head.

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Izumitani teaches combining a particular 2D image representing a human head, a selected 2D icon representing eyeglasses with a 3D model of the human head a 3D model of the eyeglasses, and object based rules to the effect that temple pieces of the eyeglasses slip over ears of the human head that is the subject of the 3D model while each lens of the eyeglasses is centered in front of an eye of the human head (fig. 7). This is done in order to generate a 3D perspective view of the eyeglasses properly located and oriented upon and fitted to the human head (fig. 7). Izumitani teaches a prospective purchaser of the real-world eyeglasses rendering a perspective view of the eyeglasses properly located and oriented upon, and fitted to, the purchaser's own human head (fig. 7). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine a particular 2D image representing a human head and a selected 2D icon representing eyeglasses with a 3D model of the human head a 3D model of the eyeglasses, and object based rules to the effect that temple pieces of the eyeglasses slip over ears of the human head that is the subject of the 3D model while each lens of the eyeglasses is centered in front of an eye of the human head taught by Izumitani with the 3D scene design disclosed by Fisher and Schein. Doing so allows the user to determine fit and look of the selected item before selection or purchase.

Claim 19:

Izumitani teaches suitably—real-world eyeglasses rendered in 3D perspective view already existing in the world, and can be ordered by the prospective purchaser (fig. 7).

Claim 20:

Fisher and Schein fail to teach a suitably real world room eyeglasses rendered in 3D perspective view that do not yet exist in the world, and must be built when ordered by the prospective purchaser. Izumitani teaches a suitably real world room eyeglasses rendered in 3D perspective view that do not yet exist in the world, and must be built when ordered by the prospective purchaser (fig. 7). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine a suitably real world room eyeglasses rendered in 3D perspective view that do not yet exist in the world, and must be built when ordered by the prospective purchaser taught by Izumitani with the 3D scene design disclosed by Fisher and Schein. Doing so allows the user to determine fit and look of the selected item before selection or purchases.

6. Claims 22 – 25, 28 – 34, 36 – 40, 43 – 49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher in view of Miodonski et al. (US 6,414,679).

Claim 22:

Fisher teaches first communicating from the server, using a digital communications network, to a client the first plurality of 2D images containing real-world 3D spaces, the second plurality of 2D images of real-world 3D objects, and the third plurality of 2D icons corresponding to the second plurality of 2D images of real-world 3D objects (fig. 5; col. 5, lines 42 – 52).

Fisher teaches selecting at the client a selected real-world 2D scene image from among the first plurality of 2D images, and a selected 2D icon from among the third

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plurality of 2D icons, which selected 2D icon does correspond to a selected 2D object image from among the second plurality of 2D object images (fig. 5; col. 5, lines 42 – 52).

Fisher teaches sizing and placing at the client the selected 2D icon within the selected real-world 2D scene image (fig. 5; col. 5, lines 42 – 52). Fisher teaches selecting at the server from among the fourth plurality of 3D models a 3D model of the real-world space corresponding to the selected real-world 2D scene image, and from the fifth plurality of 3D models a 3D mode of the real-world 3D object (fig. 5; col. 5, lines 42 – 52). Fisher teaches generating at the server from the 3D model of the real-world space, the 3D model of the real-world object and the plurality of object-based rules, a static perspective view of a 3D real-world object corresponding to the selected icon. This is properly located and oriented relative to a 3D real-world space corresponding to the selected real-world 2D scene image (fig. 5; col. 5, lines 42 – 52). Fisher teaches communicating from the server, using the digital communications network, to the client the generated static perspective view (fig. 5; col. 5, lines 42 – 52). Fisher teaches a third-communicated static perspective of the 3D real-world object being properly located and oriented relative to the 3D real-world space that is viewable from the client (fig. 5; col. 5, lines 42 – 52).

Fisher teaches the fourth communicating from the client, using the digital communications network, to the server a sales order to physically provide a real specimen of the 3D real-world object (fig. 5; col. 5, lines 42 – 52). Fisher teaches obtaining the sales order for the 3D real-world object being promoted by the static perspective view showing the client the 3D real-world object properly located and

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oriented relative to the 3D real-world space (fig. 5; col. 5, lines 42 – 52). Fisher teaches originating at a server using a digital communications network, a first plurality of 2D images depicting real-world 3D scenes (fig. 5; col. 5, lines 42 – 52).

While Fisher teaches objects for different purposes, Fisher fails to teach multiple worlds for representing distinct pluralities. Miodonski et al. (US 6,414,679) teaches the creation and accessing of multiple worlds (col. 5, lines 38 – 55). Each of these worlds represents a plurality of 3D objects. Miodonski teaches any number of a plurality of images depicting real-world 3D objects (col. 5, lines 38 – 55). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine using multiple worlds representing the multiple pluralities taught by Miodonski with the system for processing 3D objects disclosed by Fisher. Doing so enables improved organization capability for the user when processing graphical images. Fisher and Miodonski make obvious providing representations for any number of a plurality of images and real-world objects including the following: A second plurality of 2D images depicting real-world 3D objects. A plurality of 2D icons corresponding to the second plurality of 2D images depicting real-world 3D objects. A plurality of 3D models corresponds to those 3D spaces that are depicted within the first plurality of 2D images. A fifth plurality of 3D models corresponds to the 3D objects that are depicted within the second plurality of 2D images, a plurality of object-based rules.

Claim 23:

Fisher teaches an interactive method for selling real-world objects according to exercise for the purpose of selling furnishings (fig. 5; col. 5, lines 42 – 52). Fisher

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teaches originating at a server a second plurality of 2D images depicting furnishings (fig. 5; col. 5, lines 42 – 52). Fisher teaches a third plurality of icons corresponding to the second plurality of furnishing images (fig. 5; col. 5, lines 42 – 52). Fisher teaches a fourth plurality of 3D models corresponding to the rooms that are depicted within the first plurality of 2D room images (fig. 5; col. 5, lines 42 – 52). Fisher teaches a fifth plurality of 3D models corresponding to the furnishings that are depicted within the second plurality of 2D furnishings images (fig. 5; col. 5, lines 42 – 52). Fisher teaches a sixth plurality of rules regarding how furnishings fit within the rooms (fig. 5; col. 5, lines 42 – 52). Fisher teaches a first communicating from the server upon a digital communications network to the client being the first plurality of 2D room images (fig. 5; col. 5, lines 42 – 52). Fisher teaches a second plurality of 2D furnishing images (fig. 5; col. 5, lines 42 – 52). Fisher teaches a third plurality of furnishing icons (fig. 5; col. 5, lines 42 – 52). Fisher teaches selecting at the client being a selected real-world 2D room image from among the first plurality of room images (fig. 5; col. 5, lines 42 – 52). Fisher teaches a selected furnishing icon from among the third plurality of furnishing icons, which selected furnishing icon does correspond to a selected furnishing image from among the second plurality of furnishing images (fig. 5; col. 5, lines 42 – 52). Fisher teaches sizing and placing at the client the selected furnishing icon within the selected 2D room image (fig. 5; col. 5, lines 42 – 52). Fisher teaches a second communicating from the client, using the digital communications network, to the server that is of the sized displaced selected furnishing icons within the selected 2D room image (fig. 5; col. 5, lines 42 – 52). Fisher teaches selecting at the server from among

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the fourth plurality of 3D models is of a 3D model of the room corresponding to the selected 2D room image, and from the fifth plurality of 3D models a 3D model of furnishing corresponding to the selected furnishing icon (fig. 5; col. 5, lines 42 – 52). Fisher teaches generating at the server from the 3D room model furnishing rules, beings of a static perspective view of a 3D furnishing corresponding to the selected furnishing icon properly located and oriented within a 3D room corresponding to the selected 2D room image (fig. 5; col. 5, lines 42 – 52). Fisher teaches third communicating from the server, using the digital communications network, to the client being of the generated static perspective view (fig. 5; col. 5, lines 42 – 52). Fisher teaches a third-communicated static perspective viewing the 3D furnishing properly located and oriented within the 3D room being viewable from the client (fig. 5; col. 5, lines 42 – 52). Fisher teaches fourth communicating from the client upon the digital communications network to the server being of a sales order to physically provide a real specimen of the 3D furnishing (fig. 5; col. 5, lines 42 – 52). Fisher teaches obtaining the sales order for the 3D furnishing being promoted by the static perspective view showing at the client the 3D furnishing properly located and oriented within the 3D room (fig. 5; col. 5, lines 42 – 52).

Claim 24:

Fisher teaches at least one of the server's first, second, third, and fifth pluralities being proprietary (fig. 5; col. 5, lines 42 – 52). Any online shopping system is proprietary.

Claim 25:

Fisher teaches all of the servers first, second, third, and fifth pluralities being proprietary (fig. 5; col. 5, lines 42 – 52). Any online shopping system is proprietary.

Claim 28:

Fisher teaches originating at a server a set of available textures and colors (fig. 5; col. 5, lines 42 – 52). Fisher teaches originating at a server, further being of a set of available textures and colors wherein selecting, the first communicating from the server, using a digital communications network, to the client (fig. 5; col. 5, lines 42 – 52). This includes the set of available textures and colors (fig. 5; col. 5, lines 42 - 52). Fisher teaches the second communicating from the client, using the digital communications network, to the server being further from the selected textures and colors (fig. 5; col. 5, lines 42 – 52). Fisher teaches generating at the server, the static perspective view, in the form of the selected textures and colors (fig. 5; col. 5, lines 42 – 52). Fisher teaches generating at the server in the form of the static perspective view selected textures and colors (fig. 5; col. 5, lines 42 – 52). Fisher teaches a third communicating from the server, using the digital communications network, to the client generating the static perspective view containing selected textures and colors (fig. 5; col. 5, lines 42 – 52).

Claim 29:

Fisher teaches selecting being performed by an interior designer at the client (fig. 5; col. 5, lines 42 – 52). Any user can be an interior designer.

Claim 30:

Fisher teaches the image generation system producing a 2D virtual image of the room where all textures are scaled and oriented to the 3D objects in which the textures appear (fig. 5; col. 5, lines 42 – 67).

Claim 31:

Fisher teaches selecting being performed by an interior designer at the client (fig. 5; col. 5, lines 42 – 52). Any user can be an interior designer.

Claim 32:

Fisher teaches a fifth communication upon the digital communication network from the interior designer at the client to the server a request for a real physical sample of something in the generated and displayed 3D image of the room with furnishings (fig. 5; col. 5, lines 42 – 67). Fisher teaches physically providing the requested sample to the interior designer (fig. 5; col. 5, lines 42 – 62). The purchase operation can include providing a sample.

Claim 33:

Fisher teaches a fifth communication being a request for fabric and carpet swatch (col. 1, lines 45 – 56). Fisher teaches physically providing the request swatch (col. 5, lines 42 - 52). The purchase operation can include providing a sample.

Claim 34:

Fisher teaches the fifth communicating being a request for a paint or stain color example wherein the requested paint or strain color sample is physically provided (col. 2, lines 20 – 28). The finish selector can be used for selecting paint and stain colors as well as providing physical samples.

Claim 36:

Fisher teaches making the real product depicted by the 3D furnishing model, which has, until acceptance of the order, never existed save as a virtual image (fig. 5; col. 5, lines 42 – 67).

Claim 37:

Fisher teaches originating at a server, using a digital communications network (fig. 5; col. 5, lines 42 – 52). Fisher teaches a first plurality of 2D images depicting real world 3D scenes (fig. 5; col. 5, lines 42 – 67).

Fisher teaches first communicating from the server upon a digital communications network to a client the first plurality of 2D images of a real-world 3D space, the second plurality of 2D images of real-world 3D objects, and the third plurality of 2D icons corresponding to the second plurality of 2D images of real-world 3D objects (fig. 5; col. 5, lines 42 – 67). Fisher teaches selecting at the client a selected real-world 2D scene image from among the first plurality of 2D scene images, and a selected 2D icon from among the third plurality of 2D icons, which selected 2D icons do correspond to selected 2D object images from among the second plurality of 2D object images (fig. 5; col. 5, lines 42 – 67). Fisher teaches sizing and placing at the client the selected 2D scene image (fig. 5; col. 5, lines 42 – 67).

Fisher teaches a second communication from the client, using the digital communications network, to the server the sized and placed selected 2D icon within the selected real-world 2D scene image (fig. 5; col. 5, lines 42 – 67). Fisher teaches selecting at the server from among the fourth plurality of 3D models a 3D model of the

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real-world scene corresponding to the selected real-world 2D scene image and from the fifth plurality of 3D models a 3D model of the real-world 3D object (fig. 5; col. 5, lines 42 – 67). Fisher teaches generating at the server from the 3D model of the real-world space, the 3D model of the real-world object, and the plurality of object-based rules, a perspective view of a 3D real-world object corresponding to the selected icon properly located and oriented within a 3D real-world scene corresponding to the selected real-world 2D scene image (fig. 5; col. 5, lines 42 – 67). Fisher teaches a perspective view being a 3D real-world object properly located and oriented within the 3D real-world scene viewable at the client (fig. 5; col. 5, lines 42 – 67). Fisher teaches a fourth communicating from the client, using the digital communications network, to the server a sales order to physically provide a real specimen of the 3D real-world object (fig. 5; col. 5, lines 42 – 67). Fisher teaches obtaining the sales order for the 3D real-world object being promoted by the perspective view showing at the client the 3D real-world object properly located and oriented within the 3D real-world scene (fig. 5; col. 5, lines 42 – 67). Fisher teaches a plurality of 3D models corresponding to 3D spaces that are depicted within the first plurality of 2D images (fig. 5; col. 5, lines 42 – 52). Fisher teaches a plurality of object-based rules (fig. 5; col. 5, lines 42 – 52).

While Fisher teaches objects for different purposes, Fisher fails to teach multiple worlds for representing distinct pluralities. Miodonski et al. teaches the creation and accessing of multiple worlds (col. 5, lines 38 – 55). Each of these worlds represents a plurality of 3D objects. Miodonski teaches any number of a plurality of images depicting real-world 3D objects (col. 5, lines 38 – 55). It would have been obvious to one with

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ordinary skill in the art at the time of the invention to combine using multiple worlds representing the multiple pluralities taught by Miodonski with the system for processing 3D objects disclosed by Fisher. Doing so enables improved organization capability for the user when processing graphical images. Fisher and Miodonski makes obvious representing any number of a plurality of images and real-world objects including the following: A second plurality of 2D images depicting real-world 3D objects. A plurality of 2D icons corresponding to the second plurality of 2D images depicting real-world 3D objects. A fifth plurality of 3D models corresponds to the 3D objects that are depicted within the second plurality of 2D images (fig. 5; col. 5, lines 42 – 52).

Claim 38:

Fisher teaches originating at a server a first plurality of 2D images depicting rooms (fig. 5; col. 5, lines 42 – 67). Fisher in view of Miodonski, hereinafter referred to as modified Fisher, teaches a second plurality of 2D images depicting furnishings (fig. 5; col. 5, lines 42 – 67). Modified Fisher teaches a third plurality of icons corresponding to the second plurality of furnishing images (fig. 5; col. 5, lines 42 – 67). Modified Fisher teaches a fourth plurality of 3D models corresponding to the second plurality of furnishing images (fig. 5; col. 5, lines 42 – 67). Modified Fisher teaches a fourth plurality of 3D models corresponding to the rooms that are depicted within the first plurality of 2D room images (fig. 5; col. 5, lines 42 – 67). Modified Fisher teaches a fifth plurality of 3D models corresponding to the furnishings that are depicted within a second plurality of 2D furnishings images (fig. 5; col. 5, lines 42 – 67). Modified Fisher teaches a sixth plurality of rules regarding how furnishings fit within rooms (fig. 5; col. 5, lines 42 – 67).

Modified Fisher teaches the first communicating from the server upon a digital communications network to the client being of the first plurality of 2D room images, the second plurality of 2D furnishing images, and the third plurality of furnishing icons (fig. 5; col. 5, lines 42 – 67). Fisher teaches selecting at the client being of a selected real-world 2D room image from among the first plurality of room images (fig. 5; col. 5, lines 42 – 67). Fisher teaches selecting a furnishing icon from among the third plurality of furnishing icons, which selected furnishing icon does correspond to a selected furnishing image from among the second plurality of furnishing images (fig. 5; col. 5, lines 42 – 67). Fisher teaches sizing and placing at the client the selected furnishing icon inside the selected 2D room image (fig. 5; col. 5, lines 42 – 67). Fisher teaches a second communicating from the client, using the digital communications network, to the server being of the sized and placed selected furnishing icon within the selected 2D room image (fig. 5; col. 5, lines 42 – 67).

Modified Fisher teaches selecting at the server from among the fourth plurality of a 3D model of the room corresponding to the selected 2D room image, and from the fifth plurality of 3D models a 3D model of the furnishing corresponding to the selected furnishing icon (fig. 5; col. 5, lines 42 – 67).

Fisher teaches generating at the server from the 3D room model, the 3D furnishing model and the plurality of furnishing rules, is of a static perspective view of a 3D furnishing corresponding to the selected furnishing icon properly located and oriented within a 3D room corresponding to the selected 2D room image (fig. 5; col. 5, lines 42 – 67). Fisher teaches the third communicating from the server, using the digital

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communications network, to the client coming from the generated static perspective view (fig. 5; col. 5, lines 42 – 67). Fisher teaches a third-communicated static perspective view the 3D furnishing properly located and oriented within the 3D room may be observed at the client (fig. 5; col. 5, lines 42 – 67). Fisher teaches the fourth communicating from the client upon the digital communications network to the server is of a sales order to physically provide a real specimen of the 3D furnishing (fig. 5; col. 5, lines 42 – 67). Fisher teachings obtaining the sales order for the 3D furnishing (fig. 4; col. 5, lines 42 – 67). This being promoted by the static perspective view showing at the client the 3D furnishing is properly located and oriented within the 3D room (fig. 5; col. 5, lines 42 – 67).

Claim 39:

Fisher teaches selling furnishings wherein at least one of the server's first, second, third and fifth pluralities is proprietary (fig. 5; col. 5, lines 42 - 67). Any online purchase system is proprietary.

Claim 40:

Fisher teaches a method for selling wherein the entire server's first, second, third, and fifth pluralities are proprietary (fig. 5; col. 5, lines 42 - 67). Any online purchase system is also proprietary.

Claim 43:

Fisher teaches selling furnishings (fig. 5; col. 5, lines 42 - 67). Fisher teaches the originating at a server a set of available textures and colors (fig. 5; col. 5, lines 42 - 67). Fisher teaches first communicating from the server, using a digital communications

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network, to the client a set of available textures and colors (fig. 5; col. 5, lines 42 - 67).

Fisher teaches selecting at the client being further of a selected textures and colors from among the set of textures and colors (fig. 5; col. 5, lines 42 - 67). Fisher teaches the second communicating from the client, using the digital communications network, to the server selected textures and colors (fig. 5; col. 5, lines 42 - 67). Fisher teaches generating at the server being further of the static perspective view selected from textures and colors (fig. 5; col. 5, lines 42 - 67). Fisher teaches the third communicating from the server, using the digital communications network, to the client being of the generated static perspective view selected from textures and colors (fig. 5; col. 5, lines 42 - 67).

Claim 44:

Fisher teaches selecting being performed by an interior designer at the client (fig. 5; col. 5, lines 42 - 67). Any client can be an interior designer.

Claim 45:

Fisher teaches an image generation system producing a 2D virtual image of the room where all textures are scaled and oriented to the 3D objects in which the textures appear (fig. 5; col. 5, lines 42 - 67).

Claim 46:

Fisher teaches selecting being performed by an interior designer at the client (fig. 5; col. 5, lines 42 - 67). Any client can be an interior designer.

Claim 47:

Fisher teaches a fifth communicating, using the digital communication network, from the interior designer at the client to the server a request for a real physical sample of something in the generated and displayed 3D image of the room with furnishings (fig. 5; col. 5, lines 42 - 67). Any client can be an interior designer. The purchase operation is used for obtaining samples.

Claim 48:

Fisher teaches the fifth communicating being for a request for a fabric or a carpet swatch (col. 1, lines 50 – 55). Fisher teaches physically providing the requested swatch (col. 1, lines 50 – 55).

Claim 49:

Fisher teaches the fifth communicating being for a request for a paint or stain color sample (col. 1, lines 50 – 55). Fisher teaches physically providing the requested paint or stain color sample (col. 1, lines 50 – 55).

Claim 51:

Fisher teaches an interactive method for selling furnishings (fig. 5; col. 5, lines 42 - 67). Fisher teaches making the real product depicted by the 3D furnishings mode, which has until acceptance of the order, never existed save as a virtual image (fig. 5; col. 5, lines 42 - 67).

7. Claims 26, 27, 41, 42, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher and Miodonski as applied to claims 24 and 39 above, and further in view of Ringland et al. (US 6,122,391).

Claim 26:

Fisher and Miodonski fail to teach lighting effects. Ringland teaches originating at a server a set of available lighting effects originating at a server coming from a set of available lighting effects (fig. 5, #504). Ringland teaches first communicating from the server, using a digital communications network, to the client coming from the set of available lighting effects (fig. 5, #504). Ringland teaches selecting at the client coming from a selected lighting effect from the set of lighting effects (fig. 5, #504). Ringland teaches a second communicating from the client, using the digital communications network, to the server coming from the selected lighting effect (fig. 5, #504). Ringland teaches generating at the server a static perspective view being illuminated by the selected lighting effect (fig. 5, #504). Ringland teaches the third communicating from the server upon digital communications network to the client being of the generated static perspective view being illuminated by the selected lighting effect (fig. 5, #504). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the lighting effects taught by Ringland with the 3D scene design disclosed by Fisher and Miodonski. Doing so allows the user to sample the effect of light for a potential selection before making final selection or purchase.

Claim 27:

Fisher teaches selecting being performed by an interior designer at the client (fig. 5; col. 5, lines 42 – 52). Any user can be an interior designer.

Claim 41:

Fisher teaches first communicating from the server, using a digital communications network, to the client coming from the set of available lighting effects

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(fig. 5; col. 5, lines 42 - 67). Fisher teaches selecting at the client a selected lighting effect from among the set of lighting effects (fig. 5; col. 5, lines 42 - 67). Fisher teaches the second communicating from the client upon the digital upon the digital communications network to the server coming from the selected lighting effect (fig. 5; col. 5, lines 42 - 67). Fisher teaches generating at the server being further of the static perspective view as illuminated by the selected lighting effect (fig. 5, #504).

Fisher and Miodonski fail to teach lighting effects including realistic lighting and shadows. Ringland teaches originating at a server being further of a set of available lighting effects including realistic lighting and shadows (fig. 5, #504). Ringland teaches the third communicating from the server, using the digital communications network, to the client being of the generated static perspective view being illuminated by the selected lighting effect (fig. 5, #504). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine a particular 2D image representing a human head and a selected 2D icon representing eyeglasses with a 3D model of the human head a 3D model of the eyeglasses, and object based rules to the effect that temple pieces of the eyeglasses slip over ears of the human head that is the subject of the 3D model while each lens of the eyeglasses is centered in front of an eye of the human head taught by Izumitani with the 3D scene design disclosed by Gever, Fisher. Doing so allows the user to determine fit and look of the selected item before selection or purchase. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the lighting effects including realistic lighting and shadows. Ringland teaches originating at a server being further of a set of available lighting

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effects including realistic lighting and shadows taught by Ringland with the 3D scene design disclosed by Fisher and Miodonski. Doing so allows the user to sample the effect of light for a potential selection before making final selection or purchase.

Claim 42:

Fisher teaches selecting being performed by an interior designer at the client (fig. 5; col. 5, lines 42 - 67). Any client can be an interior designer.

Claim 50:

Fisher and Miodonski fail to teach the communicating being of a request for a wallpaper or wall-covering sample. Ringland teaches the fifth communicating being of a request for a wallpaper or wall-covering sample (col. 16, lines 35 – 52). Fisher teaches physically providing the requested wallpaper sample (col. 5, lines 42 - 67). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the wallpaper request taught by Ringland with the method for manipulating a 3D scene disclosed by Fisher. Doing so enables the user to determine selection for background designs.

8. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher and Miodonski et al. (US 6,414,679) as applied to claim 32 above, and further in view of Ringland et al. (US 6,122,391).

Claim 35:

Fisher fails to teach the communicating being of a request for a wallpaper or wall-covering sample. Ringland teaches the fifth communicating being of a request for a wallpaper or wall-covering sample (col. 16, lines 35 – 52). Fisher teaches physically

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providing the requested wallpaper sample (col. 5, lines 42 - 67). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the wallpaper request taught by Ringland with the method for manipulating a 3D scene disclosed by Fisher and Miodonski. Doing so enables the user to determine selection for background designs.

Response to Amendment

9. Applicant's arguments with respect to claims 1 - 51 have been considered but are moot in view of the new ground(s) of rejection.

The Applicant responds to the claims objections of the previous office action (paper # 4) with an appropriate amendment. Therefore, the said objection has been withdrawn.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J Joseph whose telephone number is 703-305-3917. The examiner can normally be reached Mondays through Fridays from 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on 703-308-0640. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

tjj
January 12, 2004

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While Fisher does teach display of 3D information on network linked computers, Fisher fails to teach transmitting from the second computer, using the digital communications network, the perspective view. Schein teaches transmitting from the second computer, using the digital communications network, the perspective view (fig. 6a, #126). Schein teaches receiving at the first computer, using the digital communication network, this perspective view (fig. 6a, #126). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine transmitting from the second computer, using the digital communications network, the perspective view as taught by Schein with the digital communication network disclosed by Fisher. Doing so enables the user to access various types of graphics and other complex digital information using a terminal having limited memory.

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